AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Cancelled)

2. (Previously Presented) The method of claim 12, wherein sending the request comprises sending the request in a random access channel.

3. (Original) The method of claim 2, wherein sending the request comprises sending a predefined code in a random access channel of an Enhanced General Packet Radio Services system.

4. (Original) The method of claim 3, wherein sending the code comprises sending the code in a channel selected from the group consisting of a RACH, PRACH, and CPRACH.

5. (Cancelled)

6. (Previously Presented) A method of establishing a call in a wireless network, comprising:

sending a request for a packet-switched call over the wireless network;

communicating control signaling in a traffic channel of the wireless network to establish the packet-switched call; and

retrieving a pre-assigned code to send in the request,

wherein retrieving the pre-assigned code comprises retrieving a random access channel mobile station code.

7. (Previously Presented) The method of claim 12, wherein communicating the control signaling comprises communicating the control signaling in a packet data traffic channel.

8. (Original) The method of claim 7, wherein communicating the control signaling comprises communicating the control signaling in PDTCH bursts of an Enhanced General Packet Radio Services system.

9. (Currently Amended) A method of establishing a call in a wireless network, comprising:

sending a request for a packet-switched call over the wireless network; and

communicating control signaling in a traffic channel of the wireless network to establish the packet-switched call,

~~wherein communicating the control signaling comprises communicating the control signaling in a packet data traffic channel,~~

wherein communicating the control signaling comprises communicating the control signaling in a packet data traffic channel mapped to a dedicated physical channel.

10. (Original) The method of claim 9, further comprising communicating bearer traffic in another traffic channel mapped to the dedicated physical channel.

11. (Original) The method of claim 10, wherein communicating the control signaling comprises communicating the control signaling in a PDTCH, and wherein communicating the bearer traffic comprises communicating the bearer traffic in a TCH, the PDTCH and TCH defined according to an Enhanced General Packet Radio Services protocol.

12. (Previously Presented) A method of establishing a call in a wireless network, comprising:

sending a request for a packet-switched call over the wireless network; and

communicating control signaling in a traffic channel of the wireless network to establish the packet-switched call,

wherein communicating the control signaling comprises communicating Session Initiation Protocol messages in the traffic channel.

13. (Previously Presented) The method of claim 12, wherein communicating the control signaling comprises communicating a Session Initiation Protocol Invite request in the traffic channel.

14. (Cancelled)

15. (Currently Amended) ~~The method of claim 14,~~ A method of establishing a call in a wireless network, comprising:

sending a request for a packet-switched call over the wireless network;

communicating control signaling in a traffic channel of the wireless network to establish the packet-switched call; and

sending a release message to terminate the packet-switched call in a traffic channel,

wherein sending the release message comprises sending a Session Initiation Protocol Bye message in the traffic channel.

16. (Cancelled)

17. (Currently Amended) ~~The method of claim 16,~~ A method of establishing a call in a wireless network, comprising:

sending a request for a packet-switched call over the wireless network;

communicating control signaling in a traffic channel of the wireless network to establish the packet-switched call; and

sending quality-of-service related messages in a traffic channel,

wherein sending the quality-of-service related messages comprises sending Resource Reservation Protocol messages.

18. (Previously Presented) The method of claim 12, wherein communicating the control signaling comprises communicating the control signaling in PDTCH bursts, the method further comprising communicating bearer traffic in TCH bursts.

19. (Previously Presented) The method of claim 12, wherein communicating the control signaling comprises communicating the control signaling in PDTCH bursts, the method further comprising communicating bearer traffic in PDTCH bursts.

20. (Cancelled)

21. (Currently Amended) The article of claim [[22]] 23, wherein the instructions when executed cause the controller to send the control signaling selected from the group consisting of RACH, PRACH, and CPRACH.

22. (Cancelled)

23. (Currently Amended) ~~The article of claim 22,~~ An article comprising one or more storage media containing instructions that when executed cause a controller to:

send control signaling to request a channel for a packet-switched call over a wireless network;

add a predetermined code into the control signaling to identify the call as a packet-switched call; and

communicate packet-switched call control signaling in traffic channels of the wireless network,

wherein the instructions when executed cause the controller to communicate the packet-switched call control signaling by communicating Session Initiation Protocol messages in traffic channels of the wireless network.

24. (Original) The article of claim 23, wherein the instructions when executed cause the controller to communicate the Session Initiation Protocol messages in PDTCH bursts of a General Packet Radio Services system.

25. (Original) The article of claim 23, wherein the instructions when executed cause the controller to communicate a Session Initiation Protocol Invite message.

26. (Original) The article of claim 25, wherein the instructions when executed cause the controller to receive response messages to the Invite message.

27. (Original) The article of claim 23, wherein the instructions when executed cause the controller to communicate a Session Initiation Protocol Bye message to release a call.

28. (Original) The article of claim 23, wherein the instructions when executed cause the controller to communicate messages to provide a supplementary service.

29. – 30. (Cancelled)

31. (Previously Presented) A mobile station for use in a wireless communications system having base stations, comprising:

a storage element storing a predetermined code associated with packet-switched calls; and

a controller to send control signaling to one of the base stations over a wireless link to set up a packet-switched call,

the control signaling containing the predetermined code, the predetermined code to identify the call as a packet-switched call,

wherein the control signaling comprises a random access channel, the random access channel containing the predetermined code,

wherein the random access channel comprises a packet random access channel, the packet random access channel containing the predetermined code.

32. (Previously Presented) The mobile station of claim 31, wherein the packet random access channel comprises a COMPACT packet random access channel, the COMPACT packet random access channel containing the predetermined code.

33. (Cancelled)

34. (Previously Presented) A radio network control system, comprising:

an interface to a wireless link capable of communicating with a mobile station; and

a controller adapted to receive a request to set up a packet-switched call over the wireless link,

the controller further adapted to assign a logical channel combination in response to the request,

wherein the logical channel combination comprises TCH + FACCH + SACCH + PDTCH + PACCH + PTCCH.

35. (Previously Presented) The radio network control system of claim 34, wherein the controller is adapted to communicate Session Initiation Protocol messages in PDTCH bursts.

36. (Original) The radio network control system of claim 34, wherein the controller is adapted to communicate a success indication of a packet-switched call session in a PACCH burst.

37. (Original) The radio network control system of claim 34, wherein the controller is adapted to communicate radio resource management signaling in a PACCH burst to indicate a state of the packet-switched call.

38. (Cancelled)

39. (Previously Presented) A data signal embodied in a carrier wave and containing instructions that when executed cause a system in a wireless network to:

receive control signaling to set up a packet-switched call over the wireless network, the control signaling carried in a first traffic channel;

establish the packet-switched call over the wireless network; and

communicate bearer data in a second traffic channel.

40. (Original) The data signal of claim 39, wherein the control signaling is carried in a PDTCH and the bearer data is carried in a TCH.

41. (Currently Amended) A data signal embodied in a carrier wave and containing instructions that when executed cause a system in a wireless network to:

receive control signaling to set up a packet-switched call over the wireless network, the control signaling carried in a first packet data traffic channel;

establish the packet-switched call over the wireless network; and

communicate bearer data in the first packet data traffic channel.

42. (Currently Amended) A method of establishing a call in a wireless network, comprising:

sending a request for a packet-switched call over the wireless network; and

communicating control signaling in a traffic channel of the wireless network to establish the packet-switched call,

wherein communicating the control signaling in the traffic channel comprises communicating a control message in [[the]] a packet data traffic channel, the control message according to a protocol for establishing a packet-switched call over an Internet Protocol network.

43. (Previously Presented) The data signal of claim 39, wherein receiving the control signaling comprises receiving a Session Initiation Protocol message carried in the first traffic channel.

44. (Cancelled)

45. (Currently Amended) ~~The article of claim 21,~~ An article comprising one or more storage media containing instructions that when executed cause a controller to:

send control signaling to request a channel for a packet-switched call over a wireless network;

add a predetermined code into the control signaling to identify the call as a packet-switched call; and

communicate packet-switched call control signaling in traffic channels of the wireless network,

wherein the instructions when executed cause the controller to send the control signaling selected from the group consisting of RACH, PRACH, and CPRACH,

wherein the predetermined code comprises a mobile station code.